

Multimedia User Guide

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First Edition: January 2010

Document Part Number: 606082-001

Product notice

This user guide describes features that are
common to most models. Some features
may not be available on your computer.

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1 Multimedia features

Your computer includes multimedia features that allow you to listen to music, watch movies, and view pictures. Your computer may include the following multimedia components:

- Optical drive for playing audio and video discs
- Integrated speakers for listening to music
- Integrated microphone for recording your own audio
- Integrated webcam that allows you to capture and share video
- Preinstalled multimedia software that allows you to play and manage your music, movies, and pictures
- Hotkeys that provide fast access to multimedia tasks

 **NOTE:** Your computer may not include all of the components listed.

The following sections explain how to identify and use the multimedia components included with your computer.

Identifying your multimedia components

The following illustration and table describe the multimedia features of the computer.



Component	Description
(1) Internal microphones (2)	Record sound.
(2) Webcam	Records audio and video and captures still photographs.
(3) Webcam light	Turns on when video software accesses the webcam.
(4) Volume mute button	Mutes and restores speaker sound.
(5) Volume scroll zone	Adjusts speaker volume.
(6) Audio-in (microphone) jack	Connects an optional computer headset microphone, stereo array microphone, or monaural microphone.
(7) Audio-out (headphone) jack	Produces sound when connected to optional powered stereo speakers, headphones, ear buds, or a headset.

WARNING! To reduce the risk of personal injury, adjust the volume before putting on headphones, earbuds, or a headset. For additional safety information, refer to the *Regulatory, Safety and Environmental Notices*.

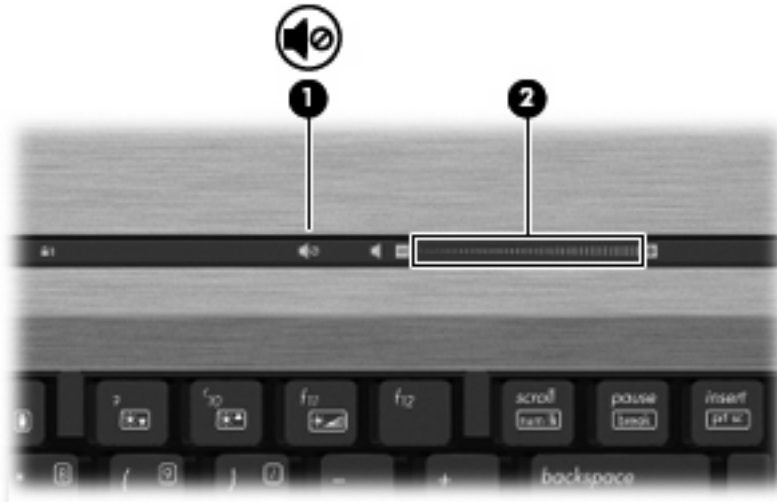
NOTE: When a device is connected to the headphone jack, the computer speakers are disabled.

Component	Description
(8) Speakers (2)	Produce sound.
(9) HDMI port	Connects an optional video or audio device, such as a high-definition television, or any compatible digital or audio component.

Adjusting the volume

You can adjust the volume using the following controls:

- Computer volume buttons (select models only):
 - To mute or restore volume, press the mute button **(1)**.
 - To decrease volume, slide your finger across the volume scroll zone **(2)** from right to left.
 - To increase volume, slide your finger across the volume scroll zone **(2)** from left to right.



- Windows® volume control:
 - a. Click the **Speakers** icon in the notification area, at the far right of the taskbar.
 - b. Increase or decrease the volume by moving the slider up or down. Click the **Mute Speakers** icon to mute the volume.

– or –

 - a. Right-click the **Speakers** icon in the notification area, and then click **Open Volume Mixer**.
 - b. In the Speakers column, you can increase or decrease the volume by moving the slider up or down. You can also mute the volume by clicking the **Mute Speakers** icon.

If the **Speakers** icon is not displayed in the notification area, follow these steps to add it:

 - a. Right-click the **Show hidden icons** icon (the arrow at the left side of the notification area).
 - b. Click **Customize notification Icons**.
 - c. Under **Behaviors**, select **Show icon and notifications** for the Volume icon.
 - d. Click **OK**.
- Program volume control:

Volume can also be adjusted within some programs.

Creating or “burning” a CD or DVD

If your computer includes a CD-RW, DVD-RW, or DVD+/-RW optical drive, you can use software such as Windows Media Player or Roxio Creator Business to burn data and audio files, including MP3 and WAV music files.

Observe the following guidelines when burning a CD or DVD:

- Before burning a disc, save and close any open files and close all programs.
- A CD-R or DVD-R is usually best for burning audio files because after the information is copied, it cannot be changed.
- Because some home and car stereos will not play CD-RWs, use CD-Rs to burn music CDs.
- A CD-RW or DVD-RW is generally best for burning data files or for testing audio or video recordings before you burn them to a CD or DVD that cannot be changed.
- DVD players used in home systems usually do not support all DVD formats. Refer to the manufacturer's instructions that came with your DVD player for a list of supported formats.
- An MP3 file uses less space than other music file formats, and the process for creating an MP3 disc is the same as the process for creating a data file. MP3 files can be played only on MP3 players or on computers with MP3 software installed.

To burn a CD or DVD, follow these steps:

1. Download or copy the source files into a folder on your hard drive.
2. Insert a blank CD or DVD into the optical drive.
3. Select **Start > All Programs** and the name of the software you want to use.
4. Select the kind of CD or DVD you want to create—data, audio, or video.
5. Right-click **Start**, click **Open Windows Explorer**, and then navigate to the folder where the source files are stored.
6. Open the folder, and then drag the files to the drive that contains the blank optical disc.
7. Initiate the burning process as directed by the program you have selected.

Refer to the software Help file or user guide for more specific instructions.

2 Working with multimedia software

The computer includes preinstalled and preloaded multimedia software. Some computer models also include additional multimedia software on an optical disc.

Depending on the hardware and software included with the computer, the following multimedia tasks may be supported:

- Playing digital media, including audio and video CDs, audio and video DVDs, and Internet radio
- Creating or copying data CDs
- Creating, editing, and burning audio CDs
- Creating, editing, and burning a video or movie to a DVD or video CD

△ **CAUTION:** To prevent loss of information or damage to a disc, observe the following guidelines:

Before writing to a disc, connect the computer to a reliable external power source. Do not write to a disc while the computer is running on battery power.

Before writing to a disc, close all open programs except the disc software you are using.

Do not copy directly from a source disc to a destination disc or from a network drive to a destination disc. Instead, copy from a source disc or network drive to your hard drive, and then copy from your hard drive to the destination disc.


Do not use the computer keyboard or move the computer while the computer is writing to a disc. The write process is sensitive to vibration.

📖 **NOTE:** For information about using software included with the computer, refer to the software manufacturer's instructions that may be provided on disc, as software Help files, or on the software manufacturer's Web site.

Accessing your preinstalled multimedia software

To access your preinstalled multimedia software:

- ▲ Select **Start > All Programs**, and then open the multimedia program you want to use.

 **NOTE:** Some programs may be located in subfolders.


Installing your preloaded multimedia software

To install your preloaded software from your hard drive, select **Start > All Programs > HP Software Setup**, and then follow the instructions on the screen.

Installing multimedia software from a disc

To install any multimedia software from a CD or DVD, follow these steps:

1. Insert the disc into the optical drive.
2. When the installation wizard opens, follow the on-screen instructions.
3. Restart the computer if you are prompted to do so.


 **NOTE:** For details about using software included with the computer, refer to the software manufacturer's instructions. These instructions may be provided with the software, on the disc, or on the manufacturer's Web site.

3 Audio

Your computer enables you to use a variety of audio features:


- Play music using your computer speakers and/or connected external speakers
- Record sound using the internal microphone or connect an external microphone
- Download music from the Internet
- Create multimedia presentations using audio and images
- Transmit sound and images with instant messaging programs
- Stream radio programs (select models only) or receive FM radio signals
- Create, or “burn,” audio CDs (select models only)

Connecting external audio devices

 **WARNING!** To reduce the risk of personal injury, adjust the volume before putting on headphones, earbuds, or a headset. For additional safety information, refer to the *Regulatory, Safety and Environmental Notices*.

To connect external devices such as external speakers, headphone, or a microphone, refer to the information provided with the device. For best results, remember the following tips:

- Be sure that the device cable is securely connected to the correct jack on your computer. (Cable connectors are normally color-coded to match the corresponding jacks on the computer.)
- Be sure to install any drivers required by the external device.

 **NOTE:** A driver is a required program that acts like a translator between the device and the programs that use the device.

Checking your audio functions


To check the system sound on your computer, follow these steps:

1. Select **Start > Control Panel**.
2. Click **Hardware and Sound**.
3. Click **Sound**.
4. When the Sound window opens, click the **Sounds** tab. Under **Program Events**, select any sound event, such as a beep or alarm, and then click the **Test** button.

You should hear sound through the speakers or through connected headphones.

To check the record functions of the computer, follow these steps:

1. Select **Start > All Programs > Accessories > Sound Recorder**.
2. Click **Start Recording** and speak into the microphone. Save the file to your desktop.
3. Open Windows Media Player and play back the sound.

 **NOTE:** For best results when recording, speak directly into the microphone and record sound in a setting free of background noise.

To confirm or change the audio settings on your computer, select **Start > Control Panel > Hardware and Sound > Sound**.

4 Video

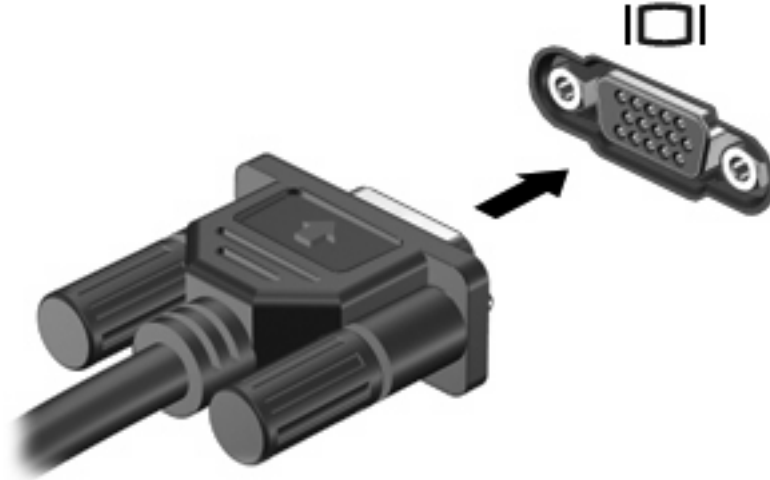
Your computer enables you to use a variety of video features:


- Watch movies
- Play games over the Internet
- Edit pictures and video to create presentations
- Connect external video devices

Connecting an optional external monitor or projector

The external monitor port connects an external display device such as an external monitor or a projector to the computer.

- ▲ To connect a display device, connect the device cable to the external monitor port.




 **NOTE:** If a properly connected external display device does not display an image, press **fn+f4** to transfer the image to the device. Repeatedly pressing **fn+f4** alternates the screen image between the computer display and the device.

Using the HDMI port

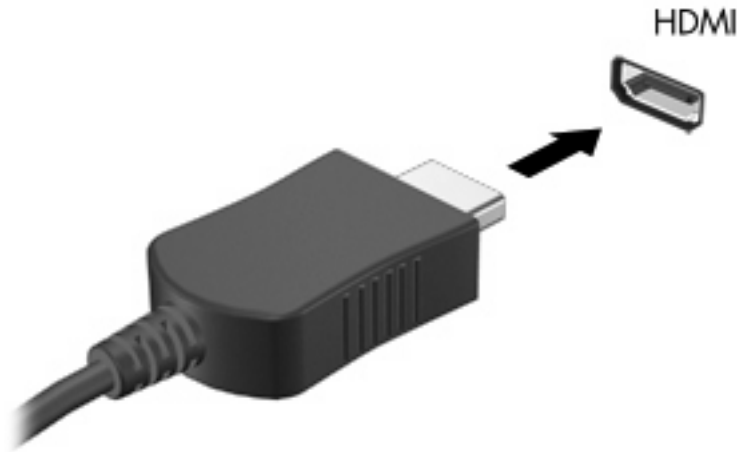
Select computer models include an HDMI (High Definition Multimedia Interface) port. The HDMI port connects the computer to an optional video or audio device, such as a high-definition television, or any compatible digital or audio component.

The computer can support one HDMI device connected to the HDMI port, while simultaneously supporting an image on the computer display or any other supported external display. The computer does not support the simultaneous use of a DVI display and an HDMI display.

 **NOTE:** To transmit video signals through the HDMI port, you need an HDMI cable (purchased separately), available from most electronics retailers.

To connect a video or audio device to the HDMI port:

1. Plug one end of the HDMI cable into the HDMI port on the computer.



2. Connect the other end of the cable to the video device, according to the device manufacturer's instructions.
3. Press **fn+f4** to switch the image between the display devices connected to the computer.

Configuring the audio using HDMI (select models only)

To configure HDMI audio, first connect an audio or video device, such as a high-definition TV, to the HDMI port on your computer. Then configure the default audio playback device as follows:

1. Right-click the **Speakers** icon in the notification area, at the far right of the taskbar, and then click **Playback devices**.
2. On the **Playback** tab, your computer will display one of two digital output choices, **Digital Output** or **Digital Output Device (HDMI)**. Click the displayed choice.
3. Click **Set Default**, and then click **OK**.

To return audio to the computer speakers, follow these steps:

1. Right-click the **Speakers** icon in the notification area, at the far right of the taskbar, and then click **Playback devices**.
2. On the **Playback** tab, select **Speakers**.
3. Click **Set Default**, and then click **OK**.

5 Webcam

Your computer includes an integrated webcam, located at the top of the display. With the preinstalled software, you can use the webcam to take a photo, record a video, or make an audio recording. You can preview the photo, video recording, or audio recording, and save it on your computer hard drive.

To access the webcam and webcam software, select **Start > All Programs > HP Webcam Application**.


The webcam software enables you to experiment with the following features:

- Video—Record and play back webcam video.
- Audio—Record and play back audio.
- Streaming video—Use with instant message software that supports UVC (Universal Video Class) cameras.
- Snapshots—Take still photos.
- HP Presto! Bizcard (select models only)—Use to transform business cards into a usable database of contact information.


Webcam tips

For optimum performance, observe the following guidelines while using the webcam:

- Be sure that you have the latest version of an instant message program before starting a video conversation.
- The webcam may not work properly across some network firewalls.

 **NOTE:** If you are having trouble viewing or sending video to someone on another LAN or outside your network firewall, temporarily disable the firewall, perform the task you want to perform, and then reenable the firewall. To permanently resolve the problem, reconfigure the firewall as necessary, and adjust the policies and settings of other intrusion detection systems. For additional information, contact your network administrator or IT department.

- Whenever possible, place bright light sources behind the webcam and out of the picture area.

 **NOTE:** For details about using your webcam, click the Help menu in the webcam software Help.

Adjusting webcam properties

You can adjust webcam properties:


- **Brightness**—Controls the amount of light that is incorporated into the image. A higher brightness setting creates a brighter image; a lower brightness setting creates a darker image.
- **Contrast**—Controls the difference between lighter and darker areas on the image. A higher contrast setting intensifies the image; a lower contrast setting maintains more of the original information's dynamic range but leads to a flatter image.
- **Hue**—Controls the aspect of color that distinguishes it from another color (what makes a color red, green, or blue). Hue is distinct from saturation, which measures the intensity of the hue.
- **Saturation**—Controls the strength of color in the final image. A higher saturation setting creates a bolder image; a lower saturation setting creates a more subtle image.
- **Sharpness**—Controls the definition of edges in an image. A higher sharpness setting creates a more defined image; a lower sharpness setting creates a softer image.
- **Gamma**—Controls the contrast affecting the mid-level grays or midtones of an image. Adjusting the gamma of an image allows you to change the brightness values of the middle range of gray tones without dramatically altering the shadows and highlights. A lower gamma setting makes grays look black, and makes dark colors even darker.
- **Backlight Compensation**—Compensates in cases where a subject with a large amount of background light would otherwise be obscured by blooming or silhouetting.
- **NightMode**—Compensates for low light conditions.
- **Zoom (select models only)**—Adjusts the zoom percentage for taking photos or recording videos.
- **Horizontal or vertical**—Rotates the image horizontally or vertically.
- **50Hz or 60Hz**—Adjusts the shutter speed to achieve a video recording that does not flicker.

Customizable preset profiles for multiple lighting conditions compensate for the following lighting conditions: incandescent, fluorescent, halogen, sunny, cloudy, night.

Controlling the webcam focus (select models only)

The following focus options are available:

- **Normal**—The default setting, appropriate for normal photography. This range extends from several feet in front of the lens to infinity.
- **Macro**—The close-up setting, for taking photos and capturing video at a very close range (select models only).

 **NOTE:** The Bizcard reader (select models only) is always preset to a macro mode setting during its operation.

To view or change the HP Webcam focus mode, follow these steps:


- ▲ Selecting **Start > All Programs > HP Webcam Application > HP Webcam > Settings > Options**.

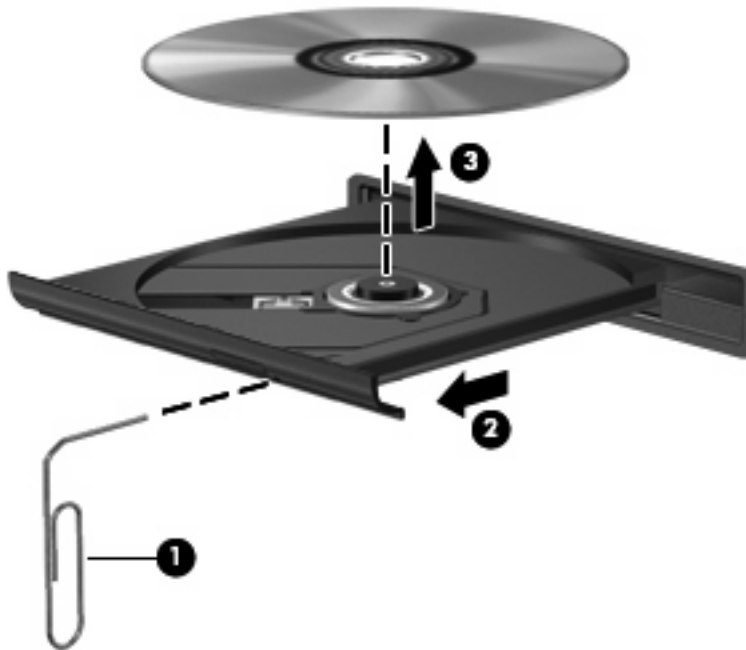
6 Troubleshooting

The following sections describe several common issues and resolutions.

The optical disc tray does not open for removal of a CD or DVD

1. Insert the end of a paper clip (1) into the release access in the front bezel of the drive.
2. Press in gently on the paper clip until the disc tray is released, and then pull out the tray (2) until it stops.
3. Remove the disc (3) from the tray by gently pressing down on the spindle while lifting the outer edges of the disc. Hold the disc by the edges and avoid touching the flat surfaces.

 **NOTE:** If the tray is not fully accessible, tilt the disc carefully as you remove it.



4. Close the disc tray and place the disc in a protective case.

The computer does not detect the optical drive

If the computer does not detect the optical drive, use Device Manager to troubleshoot the device and update, uninstall, or disable the device driver.

To check your device and drivers in Device Manager, follow these steps:

1. Remove any discs from the optical drive.
2. Select **Start > Control Panel > System and Security > Device Manager**.
3. In the Device Manager window, click the arrow next to **Disc Drives** or **DVD/CD-ROM drives**. Look for an optical drive listing.
4. Right-click the optical device to perform the following tasks:
 - Update the driver.
 - Disable the device.
 - Scan for hardware changes. Windows scans your system for installed hardware and installs any required default drivers.
 - Click **Properties** to see if the device is working properly:
 - The **Properties** window provides details about the device to help you troubleshoot issues.
 - Click the **Driver** tab to update, uninstall, or disable drivers for this device.


A new device driver is needed

Obtaining Microsoft device drivers

You can obtain the latest Windows device drivers by using Windows Update. This feature can be set to automatically check for and install updates for your hardware drivers, as well as for the Windows operating system and other Microsoft products.

To use Windows Update:

1. Click **Start > All Programs > Windows Update**.

 **NOTE:** If you have not previously set up Windows Update, you will be prompted to enter settings before you can check for updates.

2. Click **Check for updates**.
3. Follow the on-screen instructions.

Obtaining HP device drivers

To use the HP Web site to obtain HP device drivers:

1. Open your Internet browser and go to <http://www.hp.com/support>.
2. Select your country or region.
3. Click the option for software and driver downloads, and then type your computer model number in the product box.
4. Press **enter**, and then follow the on-screen instructions.

A disc does not play

- Save your work and close all open programs before playing a CD or a DVD.
- Log off the Internet before playing a CD or a DVD.
- Be sure that you insert the disc properly.
- Be sure that the disc is clean. If necessary, clean the disc with filtered water and a lint-free cloth. Wipe from the center of the disc to the outer edge.
- Check the disc for scratches. If you find scratches, treat the disc with an optical disc repair kit available at many electronics stores.
- Disable Sleep mode before playing the disc.

Do not initiate Hibernation or Sleep while playing a disc. Otherwise, you may see a warning message asking if you want to continue. If this message is displayed, click **No**. After you click No, the computer may behave in either of the following ways:

- Playback may resume.
 - or –
 - The playback window in the multimedia program may close. To return to playing the disc, click the **Play** button in your multimedia program to restart the disc. In some cases, you may need to exit the program and then restart it.
- Increase system resources by turning off external devices connected to the computer.
 - Turn off external devices such as printers and scanners. This practice frees up valuable system resources and results in better playback performance.
 - Change desktop color properties. Because the human eye cannot easily tell the difference between colors beyond 16 bits, you should not notice any loss of color while watching a movie if you lower system color properties to 16-bit color, as follows:
 1. Right-click on a blank area of the computer desktop, and select **Screen resolution**.
 2. Click **Advanced settings > Monitor** tab.
 3. Click **High Color (16 bit)**, if this setting is not already selected.
 4. Click **OK**.


A disc does not play automatically

1. Select **Start > Default Programs > Change AutoPlay settings**.
2. Confirm that the **Use AutoPlay for all media and devices** check box is selected.
3. Click **Save**.

A CD or DVD should now start automatically when it is inserted into the optical drive.

A DVD movie is not visible on an external display

1. If both the computer display and an external display are turned on, press **fn+f4** one or more times to switch between the 2 displays.
2. Configure the monitor settings to make the external display primary:
 - a. Right-click on a blank area of the computer desktop, and select **Personalize > Display**.
 - b. Specify a primary display and a secondary display.

 **NOTE:** When using both displays, the DVD image will not appear on any display designated as the secondary display.

To get information about a multimedia question not covered in this guide, select **Start > Help and Support**.

The process of burning a disc does not begin, or it stops before completion

- Be sure that all other programs are closed.
- Turn off Sleep mode and Hibernation.
- Be sure that you are using the right kind of disc for your drive. See your user guides for more information about disc types.
- Be sure that the disc is inserted properly.
- Select a slower write speed and try again.
- If you are copying a disc, save the information on the source disc to your hard drive before trying to burn the contents to a new disc, and then burn from your hard drive.
- Reinstall the disc-burning device driver located in the DVD/CD-ROM drives category in Device Manager.

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